

WHEELING CORRUGATING CO.,

WHEELING, W. VA.,

U. S. A.

THE HAZEN CO., Sole Agents,

CINCINNATI, - - - - OHIO.

DISCOUNTS FURNISHED
UPON APPLICATION.

APR 11 1881
COLUMBIA UNIVERSITY

Illustrated Catalogue and Price List,
WHEELING CORRUGATING COMPANY,
WHEELING, W. VA.,
U. S. A.

Discounts furnished upon application.

CORRUGATED SHEETS.

SELF CAPPING ROLL ROOFING.

PRESSED STANDING SEAM ROOFING.

V CRIMPED ROOFING.

BEADED SIDING AND CEILING.

METALLIC WEATHER BOARDING.

O. G. SHEETS FOR SIDING.

RIDGE CAPPING.

CORRUGATED WOOD FILLER.

BUILDING PAPER, NAILS.

DRY, PASTE AND MIXED PAINT.

METALLIC CEMENT.

FIRE PROOF SHUTTERS AND DOORS.

GALVANIZED CONDUCTORS, AND O. G. GUTTERS,

—AND—

METAL ROOFING, SIDING AND CEILING

MATERIAL OF EVERY DESCRIPTION.

WHEELING CORRUGATING CO.

WHEELING, W. VA.

U. S. A.

Class 11
AT
NO
157
1915

TERMS.

NET CASH within thirty days from date of invoice, or one per cent. discount for cash if paid within ten days.

Bills not paid at maturity are subject to sight draft with exchange or cost of collection, without further notice. We prefer that customers remit us when their accounts are due as drafts create trouble and dissatisfaction.

Remittances must be made in New York Exchange or its equivalent.

Claims for errors must be made on receipt of goods.

Under no circumstances will we consign goods.

In filling orders from our patrons, not furnishing references or not favorably rated by Commercial Agencies, we make shipment to our order and send Sight Draft with Bill of Lading attached, through Bank for collection.

QUOTATIONS are for prompt acceptance, and all orders are accepted subject to strikes, accidents and unavoidable delays.

TO THE TRADE :

In offering this Catalogue and Price List, we desire to call your attention to the quality of the Roofings, Sidings and Ceilings manufactured by us. We use the best material in their manufacture and guarantee them to be the equal of any that are made; being the largest manufacturers in this line, we carry the largest stock of finished and unfinished materials and therefore can supply your wants with the least possible delay.

We have direct connection with the following railroads; Pittsburg, Cincinnati, Chicago and St. Louis; the Pennsylvania Company's Lines including the Cleveland & Pittsburg and Pittsburg, Ft. Wayne and Chicago; The Wheeling & Lake Erie; The Ohio River Railway, connecting with the Chesapeake and Ohio, the Cleveland, Lorain & Wheeling and the Baltimore & Ohio.

We also have the advantage of river transportation to the South and South West and to Missouri River points, transferring at St. Louis.

We ask for your trade on account of the quality of our goods and our ability to give you prompt shipment, and with a desire to serve you in a manner that will be to our mutual advantage.

Yours Respectfully,

WHEELING CORRUGATING COMPANY.

CORRUGATED SHEETS.

PRICE LIST PER SQUARE, CORRUGATED IRON.

A Square is 100 Square Feet. (No Allowance for Laps.)

2½ INCH CORRUGATIONS.

GAUGE.	PAINTED.	GALV'D.
Standard Roofing	\$3.75	\$6.75
No. 26.	4.00	7.00
No. 24.	4.75	7.25
No. 22.	5.75	8.50
No. 20.	6.75	10.50
No. 18.	9.00	14.50
No. 16.	12.00	19.00

1¼ and 5⁄8 inch corrugations, 5 per cent additional.

We do not make 1¼ inch corrugations heavier than No. 22, or 5⁄8 inch corrugations heavier than No. 24.

For price on unpainted, deduct 25 cents per square from painted list.

For price on painted steel, add 25 cents per square.

PACKING CORRUGATED SHEETS.

Small shipments No. 26 and lighter are boxed.

Small shipments No. 24 and heavier are banded.

Car load shipments are banded, unless otherwise ordered, and an extra charge of 10 cents per square is made for boxing car lots.

For further information see pages 6 to 18.

APPROXIMATE WEIGHT PER SQUARE,

— OF —

2½ INCH CORRUGATED SHEETS.

All Birmingham gauge, Standard Roofing being same as No. 27 Birmingham gauge.

GAUGE.	PAINTED.	GALV'D.
Standard Roofing.	75 lbs.	87 lbs.
No. 26	83 "	94 "
" 24	100 "	115 "
" 22	125 "	135 "
" 20	156 "	172 "
" 18	220 "	240 "
" 16	295 "	330 "

1¼ and ⅝ inch corrugations weigh about 5 per cent more.

Boxing adds 5 to 7 lbs. per square.

Banding adds 1 to 2 lbs. per square.

1811

PRICE LIST PER SQUARE,

— OF —

PLAIN ROOFING, SIDING AND CEILING.

ALL STANDARD ROOFING GAUGE.	PAINTED.	GALV'D.
SELF CAPPING ROLL ROOFING	\$4.25	\$7.25
For a square we send a roll containing 50 feet by 26½ inches wide and one pound of galvanized side cleats.		
For additional information see pages 19 and 20.		
PRESSED STANDING SEAM ROOFING	4.00	7.00
For a square we send 6 1-3 sheets 8 feet long by 25 inches wide, one pound galvanized side cleats and one-fifth pound painted end cleats.		
For additional information see pages 21 and 22.		
V CRIMPED ROOFING	3.75	6.75
For a square we send 6¼ sheets 8 feet long by 26 inches wide.		
For additional information see pages 23 and 24.		
BEADED SIDING AND CEILING	3.75	6.75
For a square we send 6¼ sheets 8 feet long by 25 inches wide.		
For additional information see page 25.		
WEATHER BOARD SIDING	4.00	7.00
For a square we send 6¼ sheets 8 feet long by 26 inches wide.		
For additional information see page 26.		
O. G. SIDING	4.00	7.00
For a square we send 6¼ sheets 8 feet long by 26 inches wide.		
For additional information see page 27.		
For No. 24 gauge add \$1.00 per square to above prices.		

PACKING.

PLAIN ROOFING, SIDING AND CEILING

Roll Roofing is wrapped with wire. The other styles are boxed except in car lots, which are banded. If car lots are boxed we make an additional charge of 10 cents per square to cover cost of boxes.

For additional information see pages 19 to 27.

APPROXIMATE WEIGHTS PER SQUARE,
STANDARD ROOFING GAUGE.

(which is same weight as No. 27 Birmingham gauge.)

	PAINTED.	GALV'D.
Self Capping Roll Roofing	75 lbs.	87 lbs.
Pressed Standing Seam Roofing	75 "	87 "
V Crimped Roofing	75 "	87 "
Beaded Siding and Ceiling	75 "	87 "
Weather Board Siding	80 "	92 "
O. G. Siding	75 "	87 "

No. 24 gauge weighs, 1-3 more than Standard Roofing Gauge.

Boxing adds 5 to 7 lbs per square.

Banding adds 1 to 2 lbs. per square.

PRICE LIST OF TOOLS.

FOR SELF CAPPING ROLL ROOFING.

1 Pair 1½ inch Edging Tongs	\$1.25
1 Pair 1 inch Edging Tongs	1.25
1 Pair Seamers.. . . .	1.50
1 Pair Squeezing Tongs	1.50
1 Pair Tinner's Snips	1.50
Complete Set	\$7.00

FOR PRESSED STANDING SEAM ROOFING.

1 Pair Squeezing Tongs.. . . .	\$1.50
1 Pair Tinner's Snips...	1.50
1 Mallet.. . . .	.25
1 Jointer . . . . .	.50
Complete Set.	\$3.75

FOR V CRIMPED ROOFING.

1 Pair Tinner's Snips	\$1.50
1 Mallet . . . . .	.25
1 Jointer . . . . .	.50
Complete Set	\$2.25

Special tools are not required for applying Corrugated, Beaded, O. G. or Weather Board Sheets.

When tools are returned, freight prepaid, we refund or credit back the charge made for same.

FOR PRICES ON

Ridge and Corner Coverings	see pages 29 and 30
Corrugated Wood Filler	see page 30
Sheet Metal Base	see page 31
Cornices	see page 31
Window and Door Casings	see page 32
Paint	see page 33
Cement	see page 34

CORRUGATED SHEETS

—FOR—

ROOFING, SIDING, CEILING, DOORS, SHUTTERS,

AWNINGS &c, &c.

Corrugated is the strongest form of Sheet Metal. It is the best material for use on buildings of moderate cost, that are intended to be fire-proof. The corrugations stiffen the sheets and makes them suitable for use on light, inexpensive framing, the result being a cheap, substantial fire-proof building of handsome appearance.

We carry in stock all gauges from No. 16 to 27 inclusive in 6-7-8-9 and 10 foot lengths, and of a width to lap one corrugation and cover 24 inches.

WE MAKE ALL OTHER SIZES TO ORDER PROMPTLY.

We make estimates when desired on spaces to be covered if detailed dimensions are given. See directions for ordering page 12. Figs. 7 and 8.

CORRUGATED SHEETS.

Fig. 1.

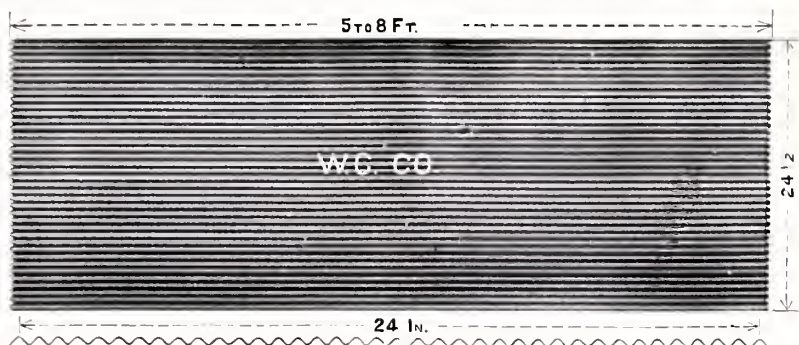


Fig. 1 Shows our $\frac{5}{8}$ inch Corrugated Sheets used for Ceiling, Siding, Shutters and interior decoration.

Fig. 2.

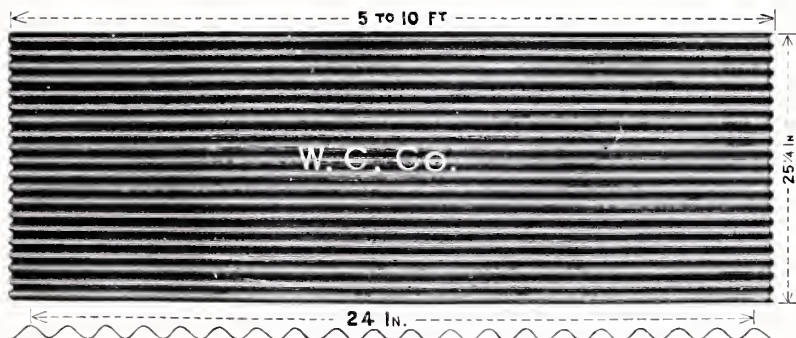


Fig. 2 Shows our $1\frac{1}{4}$ inch Corrugated Sheets used for Ceiling, Roofing, Siding, Shutters, interior decorations &c.

CORRUGATED SHEETS.

Fig. 3.

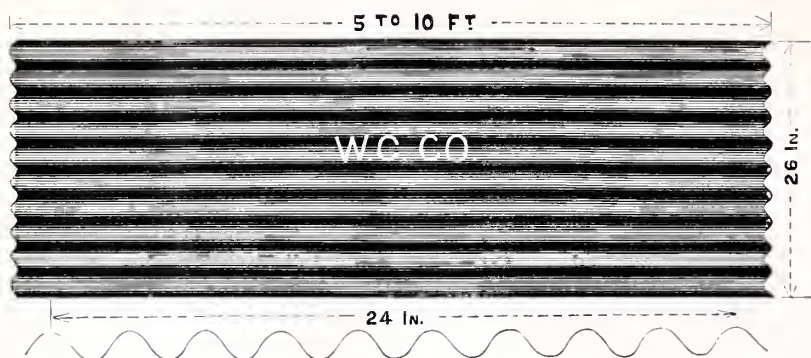


Fig. 3 Shows our Standard $2\frac{1}{2}$ inch Corrugated Sheets used for all covering purposes.

Fig. 4.

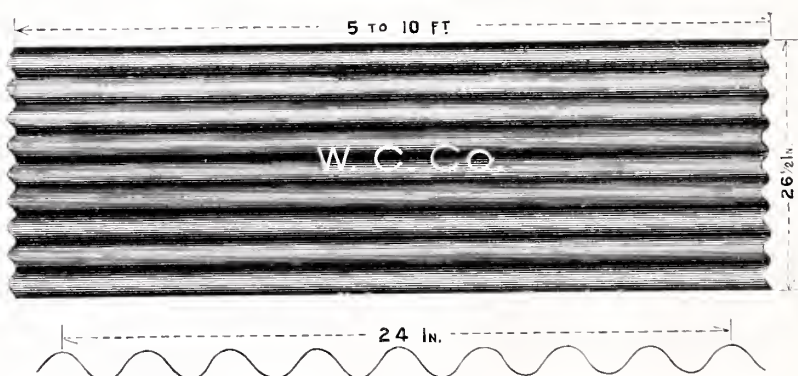


Fig. 4 Shows our 3 inch Corrugated Sheets, which we can furnish prices for upon application, we do not advise their use when Standard $2\frac{1}{2}$ inch can be secured.

CORRUGATED SHEETS.

Our Corrugated Sheets are made from the Best Quality of Box Annealed Iron and are Painted on both sides with the Best of Iron Ore Paint, ground in Pure Linseed Oil.

PRICE LIST AND WEIGHTS

— OF —

2½ INCH CORRUGATED SHEETS.

(per square, 100 square feet, no allowance for laps.)

PAINTED.

Gauge	Stan'd Roofing.	No. 26	No. 24	No. 22	No. 20	No. 18	No. 16
Approximate Wt. per sq. in lbs.	75	83	100	125	156	220	295
Approximate Shipping Wt. per sq. in lbs.	BOXED.			BANDED.			
	80	88	100	125	156	220	295
List Prices	\$3.75	\$4.00	\$4.75	\$5.75	\$6.75	\$9.00	\$12.00

GALVANIZED.

Gauge	Stan'd Roofing.	No. 26	No. 24	No. 22	No. 20	No. 18	No. 16
Approximate Wt. per sq. in lbs.	87	94	115	135	172	240	330
Approximate Shipping Wt. per sq. in lbs.	BOXED.			BANDED.			
	92	100	115	135	172	240	330
List Prices	\$6.75	\$7.00	\$7.25	\$8.50	\$10.50	\$14.50	\$19.00

NOTE—For price on 1¼ and 5⁄8 inch Corrugations, same gauges as above, add 5 per cent to net cost. Price on 3 inch quoted upon application. Deduct 25 cents a square from painted prices if iron is wanted unpainted. If Steel is desired instead of Iron, add 25 cents per square.

Wire nails for applying and sufficient dry paint for a second coating are 10 cents per square.

Add 25 cents for package on orders under 8 squares.

CORRUGATED SHEETS.

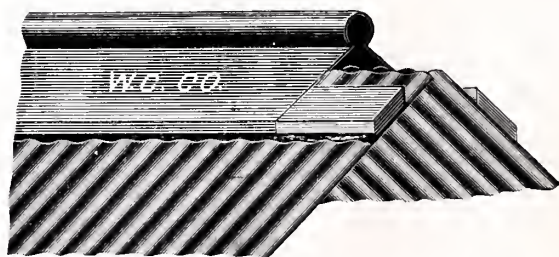
DIRECTIONS FOR APPLYING CORRUGATED ROOFING.

FOR ROOFING—WOODEN FRAMING.

Use 2½ inch Corrugated Sheets.

Begin to lay the sheets from eaves, the first sheet covering the lower left hand corner, projecting one corrugation over the side, and about three inches over the eaves as shown in Fig. 9. Hammer the projecting side corrugation down against the edge of sheathing, nailing it in place. Nail across the eaves at tops of alternate corrugations. Next place the second sheet to the right of the first, Lapping one corrugation, and with the same amount of eave projection. Nail these two sheets where they lap, through the tops of the corrugations as shown in Fig. 10, and about eight inches apart. Nail also, along the eaves, as on the first sheet. Proceed in this manner from left to right across the length of the roof, then begin at the left and lay the second row in the same manner as the first one, allowing the sheets to lap over the first row three to six inches, according to the slope of the roof and the length of the sheets used. Nail across the lower ends of sheets in the second row about two inches from the end of sheet, through both sheets. Use Corrugated Wood Filler, Fig. 40, on each side of the comb or ridge of roof, and over this place the Ridge Roll Fig. 33 or 39 as shown in Fig. 5.

Fig. 5.



With No. 26 and Standard Roofing Gauge, Purlins or Sheathing are recommended.

Where the pitch of roof is considerable, for example 6 inches to the foot, less lap than three inches will do at the ends of sheets. Where the pitch is less than three inches per foot, we recommend the use of our Pressed Standing Seam, Figs. 23 and 24, or Self Capping Roll Roofing, Figs. 21 and 22.

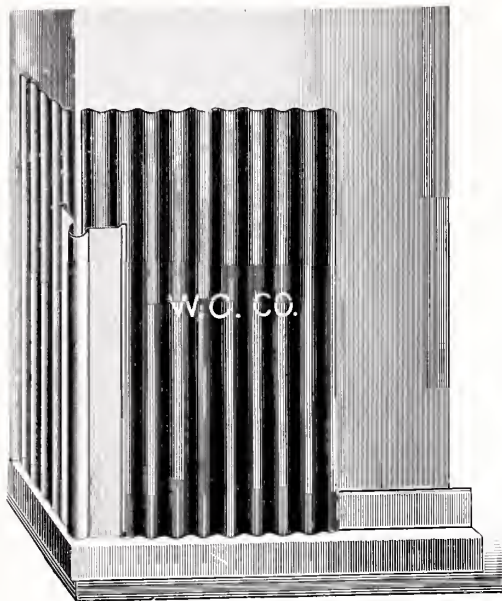
CORRUGATED SHEETS.

DIRECTIONS FOR APPLYING CORRUGATED SIDING.

FOR SIDING—WOODEN FRAMING.

Use $2\frac{1}{2}$ or $1\frac{1}{4}$ inch Corrugated Sheets.

Fig. 6.



and 44. On corners use Corner Cap, Fig. 41 or 42 as shown in Fig. 6.

Commence at bottom, running first row across side lapping one Corrugation. Do not let the iron siding touch the ground. Be very careful to keep corrugations plumb and in line. Put the second row on in the same manner, lapping ends of sheets down over the top of the first row, one inch is sufficient for the lap. Where used without sheathing boards the studding should be framed to measure from centre to centre, to correspond with covering width of sheets: or if preferred, put the studding 3 or 4 feet apart, and nail the sheets to the purlins, placing purlins 2 feet apart, and across the studding. Care should be taken to keep siding a few inches from the ground. Figs. 6

FOR IRON FRAMES.

The side laps should be rivited every 8 to 12 inches and end laps on every other corrugation.

To fasten the sheets to iron beams and purlins, a cleat of band iron $\frac{3}{4}$ or $\frac{7}{8}$ inch wide should be passed around the purlins or beams and rivited at both ends to the sheet, by contracting or pressing this cleat toward web of I beams, or purlins, a tight, secure fastening is made which allows for contraction and expansion of the sheets.

We do not advise the use of corrugated iron on any roof of less pitch than 3 inches to the foot. Truss roofs should have not less than $1\frac{1}{2}$ or $\frac{1}{4}$ pitch.

DISTANCE BETWEEN SUPPORTS OF ROOF.

No. 16 can be used on purlins 7 to 9 feet apart; No. 18, 6 to 7 feet apart; Nos. 20 and 22, 4 to 5 feet apart; No. 24, 2 to 4 feet apart; No. 26 and S. R. G., 2 feet apart.

Where the heavier gauges of iron are used Nos. 16-18-20-22 or even 24 sheathing may be dispensed with.

CORRUGATED SHEETS.

DIRECTIONS FOR ORDERING STANDARD 2½ INCH CORRUGATED SHEETS.

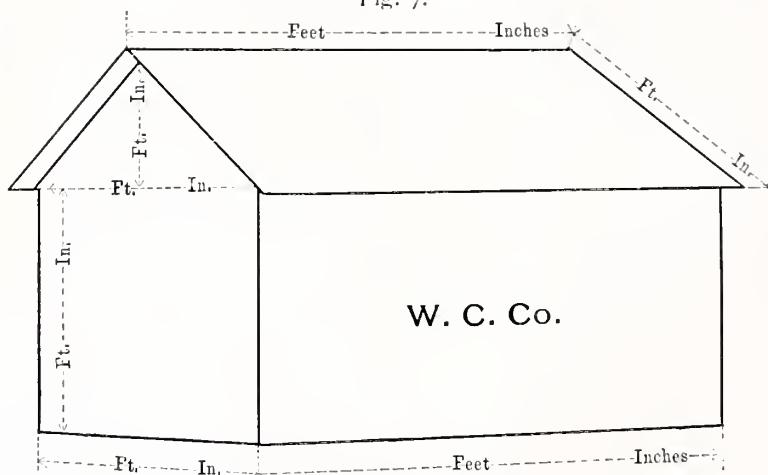
As no allowance is made for laps, the following Table gives the number of Square Feet necessary to cover One Square.

This Table is based on using 96 inch Sheets, if longer or shorter sheets are used the number of Square Feet necessary to cover One Square, will vary slightly.

END LAPS.	1 in.	2 in.	3 in.	4 in.	5 in.	6 in.
Side Lap 1 Corrugation	110 ft.	111 ft.	112 ft.	113 ft.	114 ft.	115 ft.
“ “ 1½ “	116 “	117 “	118 “	119 “	120 “	121 “
“ “ 2 “	123 “	124 “	125 “	126 “	127 “	128 “

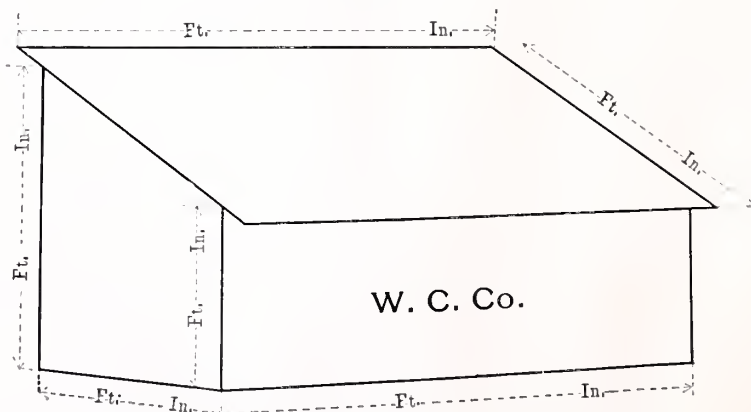
For Ridge Roof Building, fill out diagram like one below and order Ridge Cap Figs. 33 and 39 and Corrugated Wood Filler, Fig. 40 if either is wanted.

Fig. 7.



For Shed Roof Building fill out diagram like one below.

Fig. 8.



Allowing for necessary projections at eaves, ends, for comb etc.

CORRUGATED SHEETS.

Fig. 9.



Fig. 9 Shows the first sheet in position, when laid for Roofing on Wooden Frames as described in directions for applying on page 10.

Fig. 10.



Fig. 10 Shows Nailing of Corrugated Sheets at side laps as described in directions for applying on page 10

CORRUGATED SHEETS.

Showing application of Corrugated sheets to Roofs having Valleys and Hips.

Fig. 11

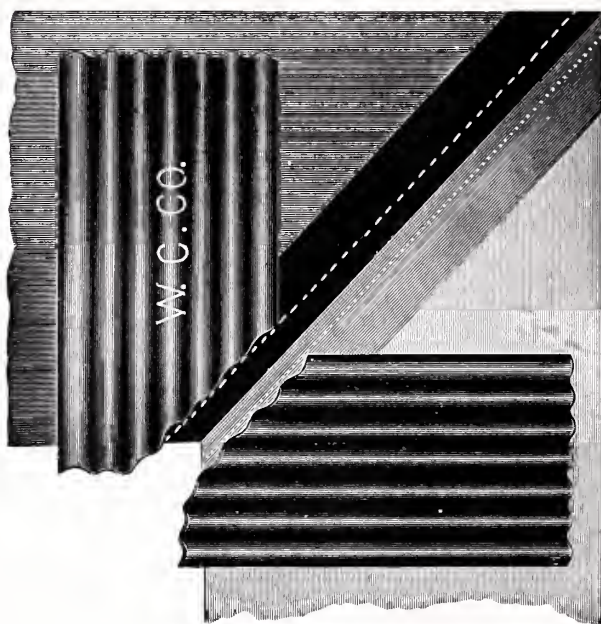


Fig. 11 Shows Valley in Roof.

If there are Valleys in Roof, form a sheet or sheets of plain painted iron, from 14 to 20 inches wide to fit the Valley and cut Corrugated Sheets up the Valley as shown in Fig. 11, letting Corrugated Sheets lap over plain iron from 4 to 6 inches. Nail Corrugated Sheets up the Valley through the top of corrugations as shown in Fig. 10.

CORRUGATED SHEETS.

Fig. 12.



Fig. 12. Shows Hip on Roof.

If there are Hips on Roof, cut Corrugated Sheets up the Hip and cover Hip Joint with Ridge or Corner Cap, Fig. 33 or 41 as shown in Fig. 12.

CORRUGATED ELEVATOR SHEETS.

Fig. 13.

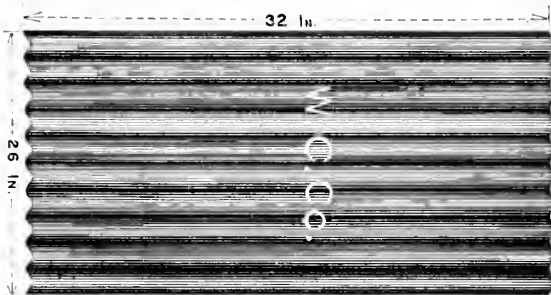
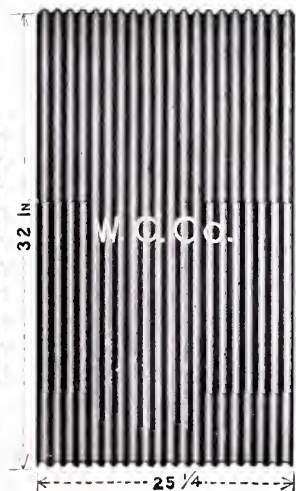


Fig. 14.



CORRUGATED ELEVATOR SHEETS.

Fig. 15.

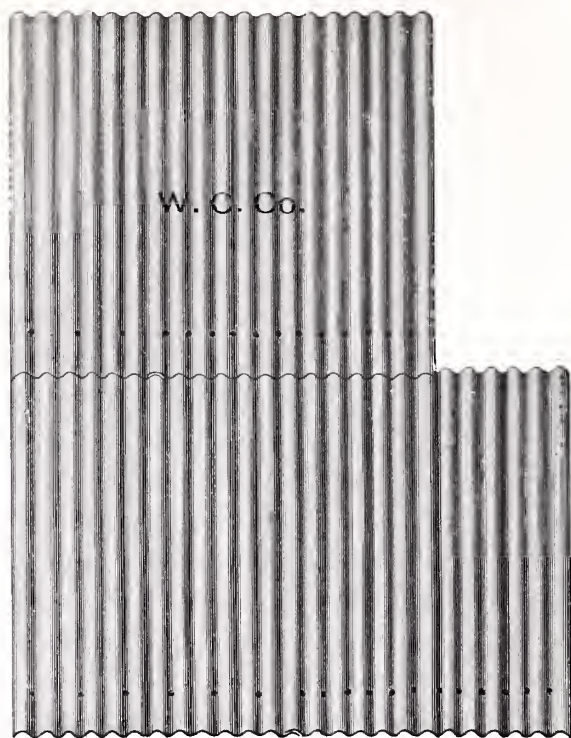


Fig. 15 Shows Corrugated Siding for Grain Elevators.

Corrugations same sizes as shown in Figs. 13 and 14.

The Sheets are laid in such a manner that the elevator sides have a chance to settle without disturbing the fastenings of the sheets. $2\frac{1}{2}$ inch Corrugated Sheets are 26 inches wide by 32 inches long and cover 24 by 30 inches. $1\frac{1}{4}$ inch Corrugated Sheets are $25\frac{1}{4}$ inches wide by 32 inches long and cover 24 inches. The sheets are laid with a 2 inch end lap and the nails are 2 inches above the upper edge of lower sheets, thus allowing the sheets to slip 2 inches in every 32 inches as the sides of the elevator settle. It is also used for a fire proof siding on all kinds of buildings with board or plank sides, as this size sheet is more convenient to handle on a scaffold than sheets 6 to 10 feet long. At corners use Corner Cap, Fig. 41 or 42 as shown in Fig. 6.

CURVED CORRUGATED SHEETS.

Fig. 16.



Fig. 16 Shows Standard 2½ inch Corrugated Curved Sheet for Roofs, Ceilings &c.

Sheets curved to any required radius, and in any gauge from No. 16 to No. 28 inclusive.

List Price is 20 per cent. per square more than straight Corrugated of same gauge and is subject to the same discount.

Fig. 17.



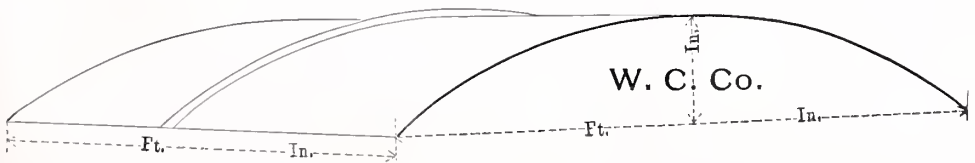
Fig. 17 Shows application of Curved Sheets in Fire Proof Buildings between Floor Beams.

These Arches are strong, light, durable and fire proof. They have been tested and No. 18 Birmingham Wire Gauge showed no deflection with a pressure of 1000 pounds per square foot and very little deflection at 2000 to 3000 lbs. pressure per square foot.

DIRECTIONS FOR ORDERING.

If for roofing allow for projections. If for Ceilings give distance between webs of I Beams and length and number of spaces to be covered, as per

Fig. 18.



CURVED CORRUGATED SHEETS.

Fig. 19.

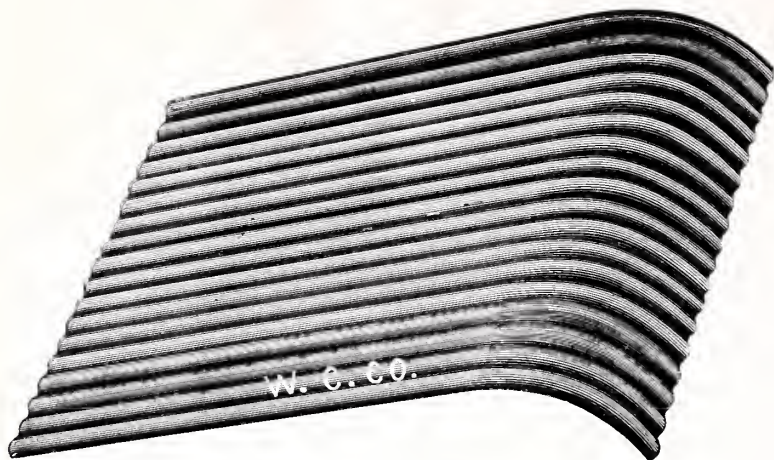


Fig. 19 Shows Curved Corrugated Sheets used for Awnings &c.

These awnings are neat, durable and permanent.

List Price is 20 per cent. per square more than straight Corrugated of same gauge and is subject to the same discount.

Fig. 20

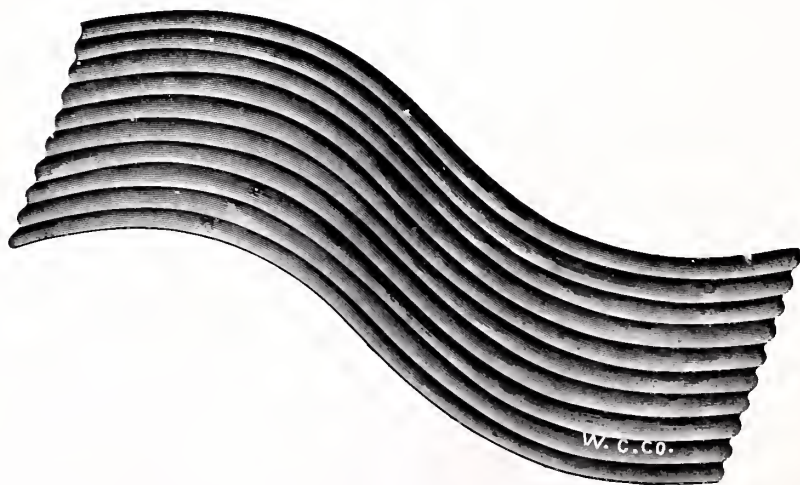


Fig. 20 Shows Curved Corrugated Sheets used for Awnings, Porches &c.

List Price is 40 per cent. per square more than straight Corrugated of same gauge and is subject to the same discount.

SELF CAPPING ROLL ROOFING

—with—

GALVANIZED CLEATS.

This roofing can be laid on any roof, flat or pitched. We particularly recommend it for flat roofs as the edges are easily turned. On very flat roofs, double seams can be turned with this steel roofing same as on tin.

The caps being a part of the roofing, riveting and counter sinking are unnecessary as there are no separate caps to work loose.

The advantage in using galvanized cleats is very great as these fastenings can not rust off and allow the roofing to loosen. This roofing should be laid over sheathing or lath placed a few inches apart, and it can be applied by a carpenter or any person of ordinary ability.

Fig. 21.



Fig. 21 Shows roll ready for shipment.

Self Capping Roll Roofing is made from the best quality of Box Annealed Steel, painted on both sides with the best of Iron Ore Paint, ground in Pure Linseed Oil. It is put up in Rolls 50 feet long by 26 $\frac{1}{2}$ inches wide (covering width 24 inches) and will lay one square. Weight of each roll about 75 lbs.

We send free, one pound of Galvanized Cleats for each square of this Roofing, and unless otherwise ordered we also send one pair Seamers, two pair Edging Tongs, one pair Squeezing Tongs and one pair Tinner's Snips for applying, charging for the same Seven Dollars, which amount we refund when Tools are returned in good order, freight prepaid.

The List Price on Painted Steel Self Capping Roll Roofing, is \$4 25 per square, Wire Nails for applying, and sufficient Dry Paint for a second coating are 10 cts. per square.

The List Price on Galvanized Self Capping Roll Roofing weighing about 87 lbs. per square is \$7 00, Wire Nails are 5 cents per square.

If customers request it in ordering and will give the distance from comb to eave after allowing for ridge seam and for bending at eave for nailing, we will make the rolls to exactly cover the lengths given, not exceeding one hundred and fifty feet. This is of great convenience in applying.

SELF CAPPING ROLL ROOFING.

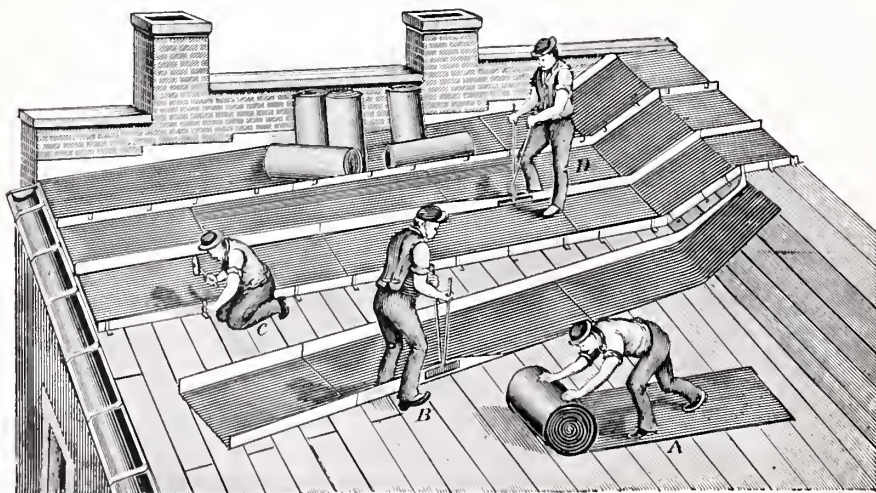
DIRECTIONS FOR APPLYING AS PER FIGS.

Unroll and cut off Roofing the length of roof, allowing an inch for comb on one side and two inches on the opposite side, and an inch or more for flashing or turning down at eaves. Turn the outside edge of the first strip you lay down over barge board one inch and nail. Turn up other edge one inch, then anchor it by nailing the cleats about 14 inches apart.

Drive nails close to edge of roofing as it holds firmer. Turn up edge on next course $1\frac{1}{2}$ inches and bring it up close to the one inch edge and then turn it down over the one inch edge; fold the end of the cleat back over the top of seam and make the seam tight with tongs. The comb is made by flattening down the standing seams 6 to 8 inches from the comb and then turning up the ends, on one side one, and on the opposite side two inches. Anchor the one inch side with cleats and then turn the two inch over the one inch end. This makes a standing seam along the comb. If you use Ridge Roll, Fig. 33 or 39, it is not necessary to allow the inch and two inches on opposite sides of the comb. In this case finish seams to the comb and then nail the Ridge Roll over the comb.

Hips are made the same way after cutting to the right angle.

Fig. 22.



PRESSED STANDING SEAM ROOFING

—with—

GALVANIZED CLEATS.

This roofing can be laid on any roof, flat or pitched. We particularly recommend it for steep roofs as there are no edges to be turned. The caps being a part of the roofing sheets, riveting and counter sinking are unnecessary as there are no caps to work loose. Galvanized cleats will not rust off and allow the roofing to loosen. This roofing can be laid over sheathing or lath a few inches apart and also over old shingles, by a carpenter or any one of ordinary ability.

We ship 8 foot sheets unless otherwise ordered.

Fig. 23.



Fig. 23 Shows sheet of Pressed Standing Seam Roofing.

Pressed Standing Seam Roofing is made from the best quality of Box Annealed Iron, painted on both sides with the best of Iron Ore Paint, ground in Pure Linseed Oil. A square contains 6 1-3 sheets, 8 feet long by 25 inches wide (covering width 24 inches) and will lay one square.

Weight about 75 lbs., and when packed for shipment about 80 lbs.

We send free one pound Galvanized Side Cleats and 1-5 pound Painted End Cleats for each square of this roofing, and unless otherwise ordered we also send one pair Squeezing Tongs, one pair Tinner's Snips, one Mallet and one Jointer for applying, charging for same \$3.75 which amount we refund when tools are returned in good order, freight prepaid.

The List Price on Painted Pressed Standing Seam Roofing is \$4.00 per square, Wire Nails for applying and sufficient Dry Paint for a second coating are 10 cts. per square. If Steel is desired instead of Iron, we can furnish it at 25 cts. per square advance.

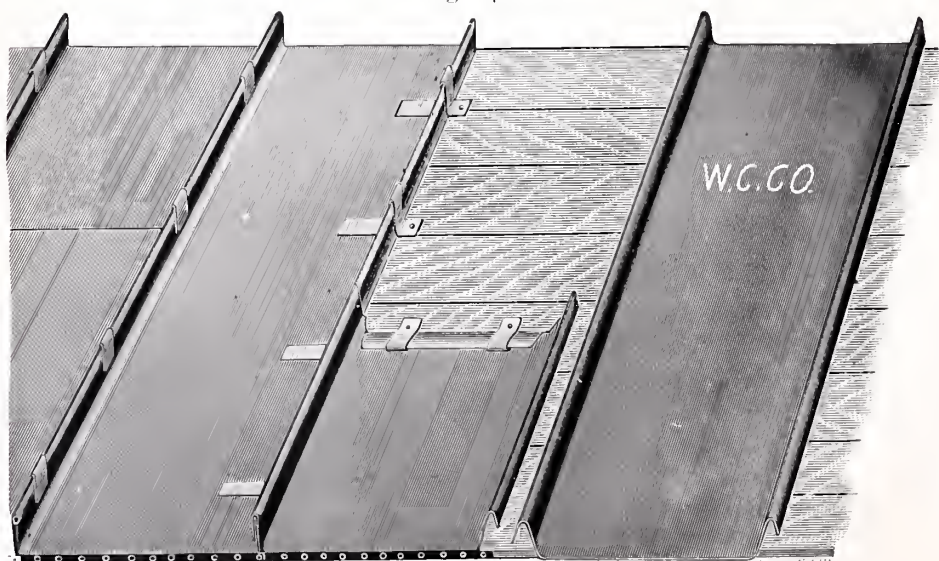
The List Price on Galvanized Pressed Standing Seam Roofing, weighing about 87 lbs. per square, and when packed about 92 lbs., is \$7.00 per square. Wire Nails for applying are 5 cts. per square.

Pressed Standing Seam Roofing of No. 24 gauge is \$1.00 per square more than above prices and weighs 1-3 more than above weights.

PRESSED STANDING SEAM ROOFING. DIRECTIONS FOR APPLYING.

Snip and then turn end locks with jointer by bending one end of sheet up and the other end down. Commence laying at right hand corner and eave of building. Flatten right hand cap for first course and lay left hand cap to a chalk line. Let the bottom sheet project over eave and end of building one inch or more. Bend down projecting portion of sheet and nail to the end and eave of building. Or if there are fire walls, turn sheet up 4 to 6 inches, nail securely and counter-flash. Use two cleats on ends and one every 12 or 14 inches on the sides. Continue laying the sheets until upper part of roof is reached. If a comb roof, allow one inch on one side and two inches on the opposite side to form standing seam along the ridge. Start next course (with the piece, if any which was cut from last sheet laid at comb), with flanges of sheets overlapping the first course, press down, turn the ends of cleats over, and then press the seam together with tongs, this finishes seam. Continue until roof is covered. The comb is made by turning up one side one, and the other side two inches, first flattening standing seams for 6 or 8 inches back from comb. Anchor the one inch side with cleats, and then turn the two inch edge over the one inch, fold the cleat back over the top and press together with tongs. This makes standing seam along the comb. If you use Ridge Roll, Fig. 33 or 39 it is not necessary to allow the inch and two inches on opposite sides of comb. In this case finish seams to the comb and then nail the Ridge Roll over the comb. Hips are made in the same way after cutting to the right angle.

Fig. 24.



V CRIMPED ROOFING.

Can be laid over sheathing, direct to rafters and over old shingles and on any roof having a pitch of two inches or more to the foot.

It is the cheapest metal roofing made and for many purposes it is as satisfactory as more expensive kinds. We recommend it to those wanting a good, cheap, durable roof for sheds, barns and similar buildings.

This roofing can be applied by any one who knows how to drive a nail.

We carry in stock 6-7-8-9 and 10 foot sheets.

Fig. 25.

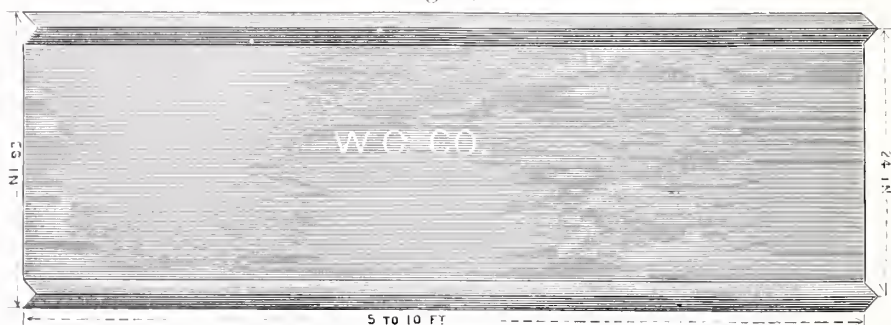


Fig. 25 Shows sheet of V Crimped Roofing.

V Crimped Roofing is made from the best quality of Box Annealed Iron, painted on both sides with the best of Iron Ore Paint, ground in Pure Linseed Oil. A square contains $6 \frac{1}{4}$ sheets 8 feet long by 25 inches wide, (covering width 24 inches), and will lay one square, less the lock or lap at ends of sheets. Weight about 75 lbs., and when packed for shipment about 80 lbs.

We send the following Tools for applying, unless otherwise ordered: One pair Tinner's Snips, one Jointer and one Mallet, charging for same \$2.25 which amount we refund when tools are returned in good order, freight prepaid.

The List Price on Painted V Crimped Roofing is \$3.75 per square. V Sticks 10 cts. per square. Wire Nails for applying and sufficient Dry Paint for a second coating are 10 cts. per square. If steel is desired instead of iron, we will furnish it at 25 cts. per square advance.

The List Price on Galvanized V Crimped Roofing weighing about 87 lbs. per square and when packed 92 lbs. is \$6.75 per square. Wire Nails are 5 cents per square.

V Crimped Roofing having more than the two outside crimps, 15 cts. per square extra for each additional crimp.

V Crimped Roofing of No. 24 gauge \$1.00 per square more than above prices and weighs 1-3 more than above weights.

V CRIMPED ROOFING.

DIRECTIONS FOR APPLYING.

Turn the end locks with jointer by bending one end of the sheet up and the other end down (Fig. 27). Lap one crimp over the other and both over the strip of wood (Fig. 28). Nail through the overlapping sheets and strip into the sheathing or roof support about one inch. This roof is frequently laid with ends lapping 4 to 6 inches, without locking them (Fig. 26). No special tools are required for laying it in this manner. If these sheets are desired for a Ridge Roof, cover Ridge by using Ridge Cap, Fig. 33 or 39.

Fig. 26.

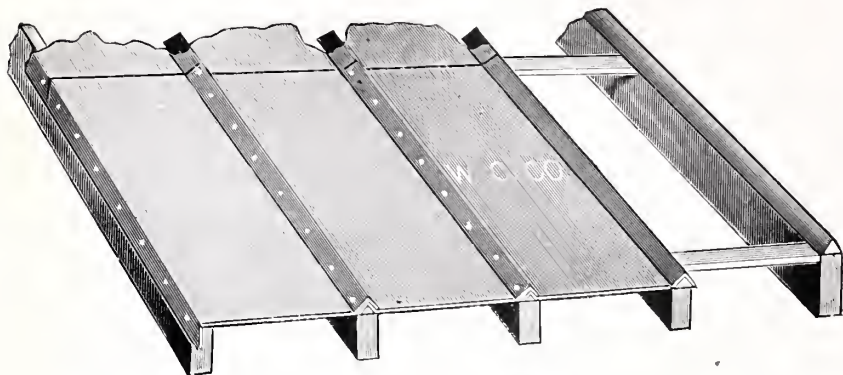


Fig. 27.



Fig. 28.



BEADED SIDING AND CEILING.

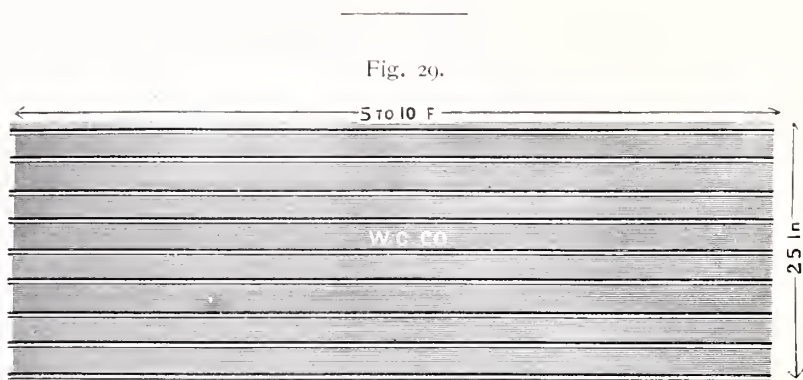


Fig. 29 Shows sheet of Beaded Siding and Ceiling.

Beaded Siding and Ceiling is made from the best quality of Box Annealed Iron, painted on both sides with the best of Iron Ore Paint, ground in Pure Linseed Oil. A square contains $6 \frac{1}{4}$ sheets, 8 feet long by 25 inches wide, (covering width 24 inches) and will lay one square, less the lap at ends of sheets. Weight about 75 lbs. and when packed for shipment about 80 lbs. No special tools are required for applying these sheets.

The List Price on Painted Beaded Siding and Ceiling is \$3.75 per square, Wire Nails and sufficient Dry Paint for a second coating 10 cts. per square.

If Steel is desired instead of Iron, we will furnish it at 25 cts. per square advance.

If you desire sheets painted white, add 25 cts. per square.

The List Price on Galvanized Beaded Siding and Ceiling, weighing about 87 lbs. per square, and when packed about 92 lbs., is \$6.75 per square. Wire Nails are 5 cents per square.

No special directions can be given for laying these sheets as they can be applied in so many different ways. It is largely used for ceilings and can be applied with panel strips so as to make Panels of size to suit purchaser, or it can be put up plain, lapping one bead at sides and about one inch at ends. For siding it is put on by lapping one bead at sides and about one inch at ends.

The painting is a matter of taste as it can be re-painted any color to suit purchaser after it is applied.

—NOTICE.—

We are now putting in a line of machinery for making the more ornamental and handsome styles of Metal Ceilings. We will be able to fill orders for these on and after July 1st, 1891 and expect to have our Ceiling Catalogue ready at that time.

We will then be manufacturing the most complete line of Metal Ceilings in the United States.

Write for the catalogue.

SHEET METAL WEATHER-BOARD.

Fig. 30.



Fig. 30 Shows sheet of Weather-Boarding.

Weather-Boarding is made from the best quality of Box Annealed Iron, painted on both sides with the best of Iron Ore Paint, ground in Pure Linseed Oil. A square contains $6 \frac{1}{4}$ sheets 8 feet long by 26 inches wide (covering width 24 inches) and will lay one square less lap at ends of sheets. Weight about 80 lbs. and when packed for shipment about 85 lbs.

The List Price on Painted Weather-Boards is \$4.00 per square, Wire Nails for applying and sufficient Dry Paint for a second coating are 10 cents per square.

If Steel is desired instead of Iron, we will furnish it at 25 cents per square advance.

The List Price on Galvanized Weather-Boards, weighing about 87 lbs. and when packed about 92 lbs. per square is \$7.00 per square, Wire Nails 5 cts. per square.

DIRECTIONS FOR APPLYING.

Lap sheets one crimp at sides and about two inches on ends. Nail along horizontal laps 4 to 6 inches apart immediately under projecting crimp, and at end laps place one nail at upper edge of each face or board.

No special tools are required for applying.

We make a Corner Board to use with Weather-Boarding, which must be ordered specially; see Fig. 42.

O. G. CRIMPED SIDING.

Fig. 31.

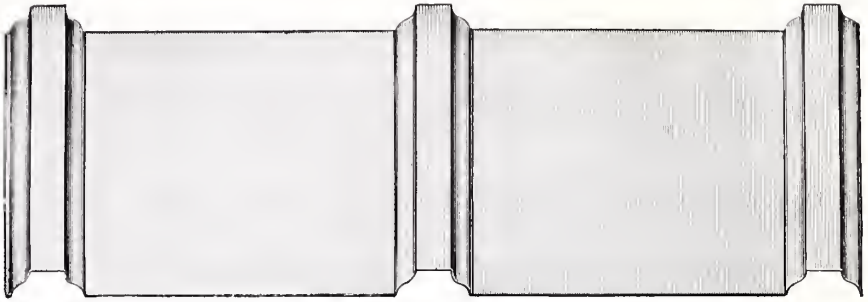


Fig. 31 Shows short sheet of O. G. Siding, Crimps 12 inches apart.

O. G. Siding is made from the best quality of Box Annealed Iron, painted on both sides with the best of Iron Ore Paint, ground in Pure Linseed Oil. A square contains $6 \frac{1}{4}$ sheets, 8 feet long by 25 inches wide, (covering width 24 inches) and will lay one square, less the lap at ends of sheets. Weight about 75 lbs., and when packed for shipment about 80 lbs.

The List Price on Painted O. G. Siding is \$4.00 per square, Wire Nails for applying and sufficient Dry Paint for a second coating are 10 cents per square.

If Steel is desired instead of Iron we will furnish it at 25 cts. per square advance.

The List Price on Galvanized O. G. Siding weighing about 87 lbs. per square and when packed about 92 lbs. is \$7.00 per square, Wire Nails are 5 cents per square.

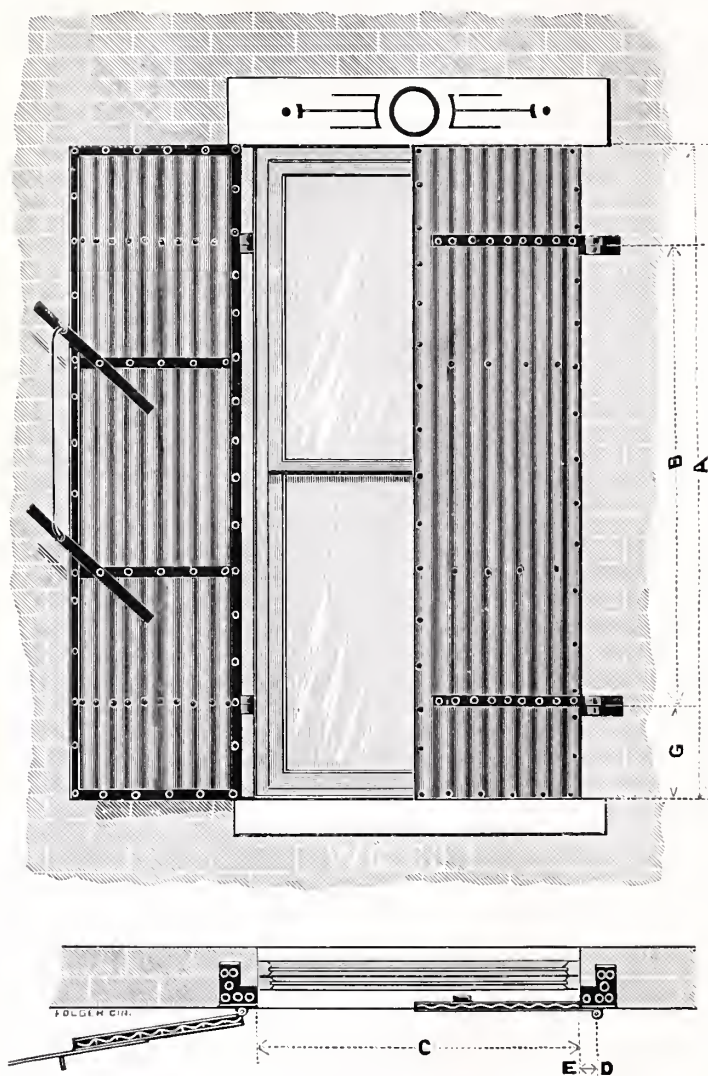
DIRECTIONS FOR APPLYING.

Lap one crimp over the other and nail through over-lapping sheets to the framing.

No special tools are required for applying.

CORRUGATED IRON SHUTTERS.

Fig. 32.



We make several different styles; and must have accurate dimensions of each opening.

Send for Special Circular on Shutters

RIDGE AND CORNER COVERINGS.

ROUND RIDGE CAP.

Fig. 33.



Fig. 34.



1 1-4 inch.

Fig. 35.



1 1-2 inch.

Fig. 36.



2 inch.

Fig. 37.



2 1-2 inch.

Fig. 38.



3 inch.

PRICE LIST.

Size or diameter of Roll	1 1-4 in.	1 1-2 in.	2 in.	2 1-2 in.	3 in.
Width of Apron.	2 in.	2 in.	2 1-2 in.	2 1-2 in.	3 1-2 in.
Girt	7 in.	8 in.	10 in.	12 in.	15 in.
Price Galvanized per foot	10c.	10 1-2c.	11c.	12c.	15c.
Painted, per foot.	8c.	8 1-2c.	9c.	10c.	13c.

If size is not given we ship the 2 1-2 inch, and if quality is not given we ship the painted.

In applying, lap about two inches.

RIDGE AND CORNER COVERINGS. ANGLE RIDGE CAP.

Fig. 39.



PRICE LIST.

	GALVANIZED.	PAINTED.
3 inch Apron.	8c. per ft.	6c. per ft.
3 1-2 inch Apron	9c. " "	7c. " "
4 inch Apron	10c. " "	8c. " "

If size is not given we ship the 4 inch, and if quality is not given we ship painted.

We make other styles when drawings are submitted.

CORRUGATED WOOD FILLER.

FIG. 40.



PRICE LIST.

One size, 1 1-4 inch thick, 3 inches wide, 4 feet long, 4c. per foot.
(For 2 1-2 inch Corrugation only.)

CORNER CAP.

Fig. 41.

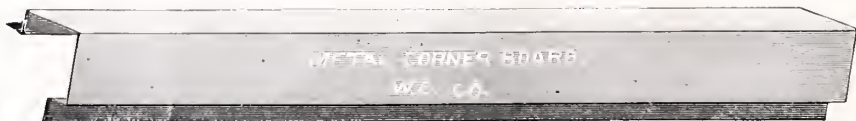


PRICE LIST.

One size, 2 inch roll, Galvanized, 11c. Painted, 9c.
If quality is not stated we ship the painted

CORNER BOARD.

Fig. 42.



PRICE LIST.

One size, 4 inch face and 1 inch angles.
Galvanized 12c. per foot ; painted 10c. per foot.
If quality is not stated we ship the painted.

CORNICES.

Fig. 43.

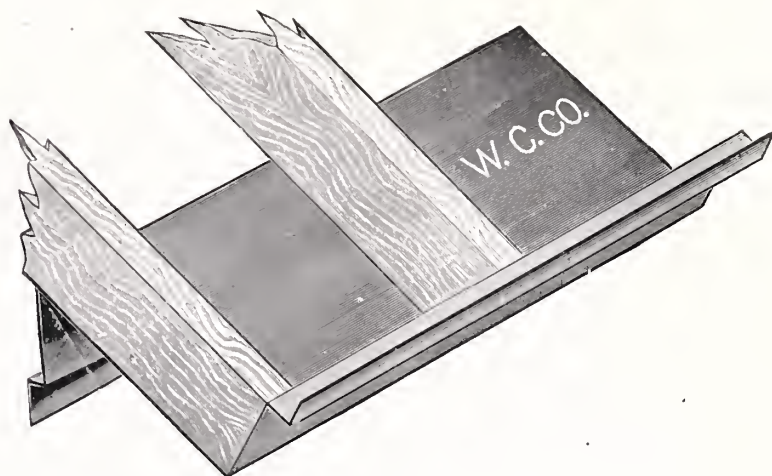
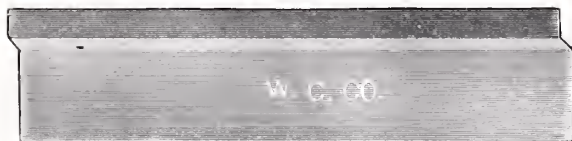


Fig. 43 Shows section of Sheet Metal Cornice as applied on rafters. Regular lengths 48 inches; but we can furnish any length up to 8 feet to suit the distance between rafters, and for any size and design of Cornice.

PRICE LIST.	No. 26. Painted.	No. 26. Galvanized.	No. 24. Painted.	No. 24 Galvanized.
	per foot.	per foot.	per foot.	per foot.
24 inch Girt . . .	.18	.20	.21	.23
26 " " . . .	.19	.21	.22	.24
28 " " . . .	.20	.22	.23	.25
30 " " . . .	.21	.23	.24	.26

SHEET METAL BASE.

Fig. 44.



PRICE LIST.

No. 26, Painted, Girt 9 inches	10c. per foot.
No. 24, " " 9 "	11c. " "
No. 26, Galvanized, Girt 9 inches	12c. " "
No. 24, " " 9 "	13c. " "

WINDOW AND DOOR CASINGS.

WINDOW CASING

PRICE LIST.

SIZE.	No. 26. Painted.	No. 24. Painted.	No. 26. Galvanized.	No. 24. Galvanized.
	per foot.	per foot.	per foot.	per foot.
3 in. face	.09	.10	.10	.11
4 in. "	.10	.11	.11	.12
5 in. "	.11	.12	.12	.13

WINDOW SILL.

Fig. 46.



PRICE LIST.

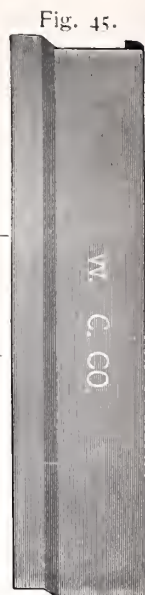
No. 26, Painted, Girt 9 inches	10c. per foot.
No. 24, " " 9 "	11c. " "
No. 26, Galvanized, Girt 9 inches	12c. " "
No. 24, " " 9 "	13c. " "

Fig. 47.

DOOR CASING

PRICE LIST.

SIZE,	No. 26. Painted.	No. 24. Painted.	No. 26. Galvanized.	No. 24. Galvanized.
	per foot.	per foot.	per foot.	per foot.
3 in. face	.12	.13	.13	.14
4 in. "	.13	.14	.14	.15
5 in. "	.14	.15	.15	.16



IRON ORE-PAINT.

For painting Iron and Tin Roofs, Factory, Farm and Railroad Buildings, Freight Cars, Bridges, Fences and Iron Work of all kinds.

This Paint is finer and spreads further than other kinds. Being finer it takes less oil. The saving in oil will pay for the dry paint. Any one can mix and apply it. Seven pounds dry paint to one gallon Linseed Oil is the right proportion.

PRICES—DRY.

100 lb. Kegs	2c. per lb. net.
400 " Barrels.	1 1-2c. " " "
Ton lots	1c. " " "

PAINT GROUND IN PURE LINSEED OIL—PASTE FORM.

We use the dry paint described above and Pure Linseed Oil in preparing this paste. It only requires half as much oil to mix for use as dry paint.

PRICES—PASTE.

25 lb. Cans	5c. per lb. net.
50 " "	4 1-2c. " " "
100 " "	4 1-4c. " " "
Barrels	3 3-4c. " " "

MIXED PAINT.

Prepared especially for Iron, Tin and Shingle Roofs, Bridges, Barns, Sheds, Railroad Buildings, etc.

Made of pure Boiled Linseed Oil and Dry Iron Ore Paint, ground in same and mixed by machinery. We guarantee it to be first class in every respect.

PRICES—IN WOODEN PAILS,

One Gallon	90c. per Gallon net.
Two to five Gallon	85c. " " "
Five to ten Gallon.	80c. " " "
Half Barrel	70c. " " "
Barrel	65c. " " "

ELASTIC ROOF CEMENT.

Guaranteed the best in the market for pointing up and preventing leaks in metallic roofs, around chimneys, copings, sky-lights, gutters, cupolas, dormer windows, slate, stone, brick and wood.

Iron, Tin, Shingle and Slate Roofs can be made absolutely and permanently water-tight by the use of our Elastic Roof Cement. It is very adhesive ; sticks to anything ; will not crack in summer or winter ; easily applied with knife or trowel.

Ever kind of a leak in roofs can be effectually stopped by this Cement. It can be applied readily and perfectly by any one without the use of heat or special tools, which cannot be done with solder or any other kind of compound. No joint, seam or leak upon which this cement is applied ever gives out. It is perfection. Tinnors and roofers cannot afford to do without it.

PRICES.

10 lb. pound Cans	8c. per pound net.
25 " " "	7c. " " "
50 " " "	6c. " " "

DIRECTIONS FOR USING.

Prime around leak with paint ; take a piece of muslin of a size to extend one inch all around the leak ; fray the edges of muslin ; cover one side of it with Cement and paste over the hole ; spread it smooth to expel air from beneath and then paint the patch.

CARE OF ROOFS.

As all the metals in common use for roofing will rust, it is necessary to protect their surface by a coating of a durable character. Paint is the cheapest effective coating that can be used, and if it is renewed every three or four years it is entirely satisfactory.

Galvanized iron is iron coated with zinc, and zinc is one of the few and the only comparatively cheap metal not affected injuriously by exposure to the weather, and therefore Galvanized Roofing and Siding does not require painting, and the first is the only cost. As Galvanized Roofings are much cheaper than they have been, they are coming into general use. We recommend them to every one who wants the best, least troublesome and in the long run, the cheapest roofing.

INSURANCE.

Steel or Iron roofings reduce the rates of Insurance fully one-third as a rule, and in towns poorly provided with fire apparatus as much as one-half to two-thirds.

ROOFING TOOLS.

We charge on our invoice for all tools shipped and refund or credit the amount so charged when the tools are returned to us in good order, freight prepaid.

In returning tools, mark on tag who from, so we can give the proper credit, or remit you the amount paid.

GALVANIZED ROOFING AND SIDING.

We strongly recommend the use of galvanized roofing and siding. The metal is protected in the best manner and will not rust. It is suitable for any climate and does not have to be painted, therefore the first cost is the only one. It is not subject to injury from natural causes and unless abused will last indefinitely.

GENERAL DIRECTIONS FOR ORDERING.

In ordering Roofing, Siding and Ceiling, state how it is to be applied, if on Sheathing, Rafters or Studding. State kind of Roofing, Siding or Ceiling desired, give the Gauge of Iron and whether Painted or Galvanized. If Corrugated Iron is desired, state size of corrugation. Order V Sticks (for V Crimped Roofing) and Nails and Dry Paint if they are wanted.

AGENCY.

An Agency means simply an Exclusive Customer for the territory assigned him; all inquiries from said territory thereafter are referred to him, which protects him in the sale of our goods. He buys the goods of us at such times and in such quantities as he desires, and makes his own selling price.

Where we have no customer we sell direct to consumer.

ROOFING CAN BE APPLIED BY INEXPERIENCED PERSONS.

Any person of ordinary ability, who can read and comprehend the plain, simple directions, can put it on successfully.

COST OF LABOR.

The cost varies from 20 cents to 50 cents per square, according to the size and pitch of the roof. On an ordinary pitched roof one man can lay from ten to twelve squares per day. As wages vary in different localities, you can your make own estimate as to the actual cost.

STEEL AND IRON ROOFING,

COMPARED WITH SHINGLES.

The greater number of fires originate on the roofs. The average life of a shingle roof is only ten years in town and twelve in the country. Shingles, years ago were made of prime timber, but are now made of soft trees, sapplings, limbs and old cuttings, because prime timber brings higher prices for other purposes.

Steel costs about the same as shingles, can be laid much faster, will last many times longer, looks much better and is safe against fire and lightning.

COMPARED WITH SLATE.

Slate roofing requires a steep pitch and a heavy, expensive structure to support the great weight, which is about seven times as heavy as steel roofing. It will break from freezing or thawing, or from heat of adjacent fires, costs twice as much and is more expensive to keep in repair than a steel roof.

COMPARED WITH TIN.

Steel is stronger, has fewer seams, and can be applied faster and on cheaper surface.

Nine-tenths of the tin plate now used for roofing is made light, cheap and inferior to compete in price with steel roofing.

Tin roofs contain from 8 to 10 times as many cross-seams, which are soldered.

Solder is a weaker material than tin and breaks from contraction, expansion and other natural causes.

FIRE-PROOF.

There is no other roofing that can compare with Steel or Iron roofing, as a protection from fire. Very many times it has proven itself effectual in this particular, and if the frame under it burns, it adds nothing to the flames. A shingle roof will catch fire from a spark, slate cracks to pieces and slides off when approached by heat, leaving the felting and dry sheathing exposed to the fire. A gravel and pitch roof when once started makes an unquenchable flame.

LIGHTNING-PROOF.

Lightning has never been known to injure a building covered with a Steel or Iron roof. The surface of the metal scatters the electricity.

SHEET IRON

and

SHEET STEEL,

BLACK, PAINTED AND GALVANIZED.

Prices quoted upon application

CORRUGATED EXPANDING CONDUCTORS

and

O. G. GUTTERS.

Send for special circular and prices.

BUILDING PAPER

and

NAILS,

FOR ROOFING AND SIDING

Always in Stock.

RULES OF MEASUREMENT IN SELLING AND APPLYING SHEET

METAL BUILDING MATERIAL.

At a meeting of the National Iron Roofing Association, held Jan. 13th, 1891, the following Rules of Measurement where adopted:

All Iron and Steel Roofing, and Siding, except Galvanized, is painted both sides, unless otherwise ordered, and is sold by the square, except Corrugated Iron and Steel, which is sold by the square or pound as preferred.

A square consists of 100 square feet and is calculated by the following rules of measurement.

CORRUGATED IRON AND STEEL.

The full width and length after corrugating is calculated.

IRON AND STEEL V CRIMPED ROOFING, BEADED SIDING,

CEILING AND WEATHERBOARDS.

The full length of sheets together with the actual covering width is calculated.

IRON AND STEEL PRESSED STANDING SEAM

AND ROLL ROOFING.

The actual covering width and length is calculated.

WIDE GUTTERS AND VALLEYS.

The full length and width of material is calculated.

Nails, Wood strips, Dry Paint and Ready Mixed Paints are not included in the price quoted on the other material, but are charged separately when furnished.

Ridge Roll, Ridge Cap, Corrugated Wood Strips, Corner Boards, Panel Strips, Window and Door Case Coverings, Mouldings, Stylings, Eave Troughs, Conductor Pipes etc., are sold by the lineal foot and not included in prices quoted on other material, but when furnished are charged separately.

The weights of flat black iron and steel sheets before being corrugated and painted are based on the Birmingham Gauge as given in Haswell, 55th, edition, page 119.

No. of Gauge	27,	26,	24,	22,	20,	18,	16.
Wt. per square ft. . . .	64,	72,	88,	1.12,	1.40,	1.96,	2.60.

No. 27 is known as Standard Roofing Gauge and always shipped when the gauge wanted is not specified.

AFTER THE MATERIAL IS APPLIED TO BUILDING.

ROOFS—Measure the length of the roof, including amount turned up or down at each end or gable, and multiply by the distance from eave to eave, including the material used in the ridge seam, and the material lapped down or up at eaves.

ROOFS WITH HIPS, VALLEYS, DORMERS, ETC.—Measure each section through the centre, horizontally and multiply by the length of the strip of metal at the centre and in addition to the actual surface of the roof, measure the length of hips, and valleys, by one foot wide. The extra measure of hips and valleys is to compensate for the extra labor and loss of material in cutting, fitting and laying same.

OPENINGS.—Make no deduction for any opening, chimney, stack, skylight, dormer-window or ventilator, unless such openings measure more than 50 square feet. If more than 50 square feet and not more than 100 square feet, deduct half the size of the opening; if more than 100 square feet, deduct the full size of opening. The labor to flash pipes and around stacks, whether of brick or iron, is charged extra.

The reason for not deducting otherwise than as specified is, that the waste of material and extra work in cutting and fitting the material for flashing such openings is equal to or greater than the value of the material cut out.

GUTTERS AND VALLEYS.—Multiply full length by full width of girt.

SIDING.—Multiply full length of each section by the height.

Make no deduction for any window, door or other opening, unless said opening measures more than 10 square feet. If more than 10 and not more than 25 square feet, deduct one-half the size of the opening. If more than 25 square feet, deduct all of the opening except when the wood casings to the windows, doors and other openings are to be covered with iron or steel casings; in such instances, no deductions for openings are made.

GABLES.—To estimate contents of gables, multiply the width by one-half the height or multiply the height by one-half the width.

CORNER STRIPS.—Are charged extra by the lineal foot, also cornices are charged extra in all instances, as the price varies according to the girt of material used and style of the same.

EAVE TROUGHS AND CONDUCTOR PIPES.—Measure the entire length and add one foot extra for each Miter, Shoe or Angle.

FASTENINGS.—Measure all material used necessarily, including unavoidable waste, except where no deductions are authorized for openings.

CEILINGS.—Multiply the length of each section by the width.

Separate Mouldings, Panel division Strips, Stylings, Cornices and Friezes are calculated by the lineal foot extra. Make no deductions for openings measuring less than 10 square feet, if more than 10 square feet, deduct the full size.

SCAFFOLDING.—Where scaffolding is necessary, the customer is to furnish all necessary materials for same free of charge, and the roofer is to construct the scaffolding free of charge.

DOMES, SPIRES, DOORS, etc.—Measure all material necessarily used including waste, charge for it at its value, together with the cost of labor applying the material at wages agreed upon.

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**THE HAZEN CO.,
SOLE AGENTS,
CINCINNATI, OHIO.**